

Claim Listing

1. (presently amended): An attenuated strain of *Flavobacterium columnare* resistant to ampicillin, characterized by smooth-edged colonies, significantly less ability to adhere to skin tissue than the parent, non-attenuated strain of *Flavobacterium columnare*, and effective for eliciting an immune response in fish which is protective against infection by virulent strains of *Flavobacterium columnare*.

2. (original): The attenuated strain as described in claim 1 wherein said strain of *Flavobacterium columnare* is NRRL B-30687.

3. (original): A vaccine comprising: (1) in an effective immunization dosage the attenuated strain of *Flavobacterium columnare* of claim 1 and a carrier.

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4. (presently amended): The vaccine as described in claim 3 wherein said strain of *Flavobacterium columnare* is ~~selected from the group consisting of~~ NRRL B-30687.

5. (original): The vaccine as described in claim 3 wherein said carrier is water.

6. (original): A method of providing protection for fish against infection by virulent strains of *Flavobacterium columnare* comprising administering the vaccine of claim 5 to said fish.

7. (original): A method of claim 6 wherein said fish is catfish.

8. (original): The method of claim 6 wherein said administering is by means of immersion of said fish in an aqueous medium containing said vaccine.

9. (original): The method of claim 8 wherein said attenuated strain of *Flavobacterium columnare* is present in

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the immersion medium at a concentration greater than or equal to about 1×10^5 CFU/mL.